MEMORANDUM

TO: Mr. Steve Murray, P.L.S. - Tippecanoe County Surveyor

FROM: David W. Eichelberger, P.E. - CBBEL, Indianapolis

PROJECT: Weathersfield Planned Development

CBBEL Project No. 02-038 (DM)

DEVELOPER/OWNER: R. Gregg Sutter

LOCATION: 40° 23' 34" Latitude

-86° 44' 50" Longitude

RECOMMENDATION: Final Approval with Conditions

Twenty-seven (27) large, single-family residential lots will be developed on 70 acres on the east side of County Road 800 East approximately ¼ mile south of County Road 150 South in Perry Township. The residential development will have a single, private access drive enclosing a common area at its terminal end. Drainage swales will be constructed to convey stormwater between proposed lots upstream of the drive and along the drive to natural, onsite drainageways. Several storm pipes will be installed to carry runoff under the access drive. Some of the runoff will drain toward the street entrance where it will be picked up by existing culverts, north and south of the entrance at County Road 800 East, and conveyed north within a drainageway west of the county road. On-site drainageways will discharge to a branch of the South Fork Wildcat Creek, which meanders westerly toward County Road 800 East along the north property line of the development. Two (2) lots will be located north of the creek channel and accessed from County Road 150 South.

It does not appear that detention will be required for the proposed development. The applicant has provided information indicating the peak discharge from the developed site as well as the runoff volume to each drainage outlet will not be increased. Moreover, the natural drainage outlets under existing conditions will not be altered under proposed conditions. The site conditions and design meet the requirements for a detention exemption per Chapter 3, Section 2.A.iii of the Ordinance.

Based on information available to CBBEL, it does not appear that any Tippecanoe County Regulated Drain exists at or near the project site. There are no regulated drain outlets, crossings, or encroachments proposed with this development. The site is not located within the Tippecanoe County MS4 Area.

This project was previously reviewed in memorandums dated June 15, October 19, December 2, 2005, and February 6, 2006. This project was granted final approval with conditions at the December 7, 2005 Tippecanoe County Drainage Board meeting. The applicant has submitted additional information to address the conditions of approval. After a review of the additional information, the following conditions must still be addressed:

- 1. An Application for Stormwater Permit (Application) still must be completed and submitted. The Application can be found in Appendix B of the Tippecanoe County Stormwater Technical Standards Manual (Standards).
- 2. The BMP Operations and Maintenance Manual (O & M Manual) provided under separate cover should be revised. The O & M Manual is intended to:
 - identify the owner of the post-construction BMP measures,
 - identify the location of the post-construction BMP measures,
 - identify the <u>easements</u> for the post-construction BMP measures,
 - identify any <u>access easements</u> necessary for maintenance of post-construction BMP measures, and
 - provide <u>specific actions required to maintain the post-construction BMP</u> measures.

The O & M Manual should be revised to refer <u>only</u> to the post-construction BMP measures that were on the approved construction plans and the drainage report. For this development, the post-construction BMP measures include:

- Vegetated swales between lots 3/4, 7/8, 14/15, 17/18, 18/19, 20/21, 21/22, 23/24
- Vegetated swales in the back of lots 15, 16, 17, 21, and 22
- Vegetated swale through the common area
- Roadside ditches along Shepardson Creek Drive
- Rip rap rock dams between lots 3/4 and 7/8

Exhibits must be included in the O & M Manual that identify the location of these post-construction BMP measures, the associated easements, and any access easements necessary for maintenance.

A specific plan for the monitoring and maintenance of the post-construction BMP measures must be included in the O & M Manual. This plan should include, at the least, the frequency of monitoring, a monitoring checklist identifying when various maintenance items such as debris removal, mowing, correction of erosion problems, and sediment removal should be completed (a sample monitoring checklist for vegetated swales can be found in Appendix B of the Standards), maintenance guidelines for the removal of sediment, reseeding rates upon the completion of sediment removal, and details that depict the original shape of the vegetated swales, such as swale slope, bottom width, and side slopes

Lastly, all references to erosion and sediment control practices, monitoring, and reporting <u>during active construction</u> should be removed from the O & M Manual. This information could still be supplied to the developer, but in a different document.

3. The applicant must pay any final drainage review fees per Ordinance 2005-04-CM and submit a letter to the County Surveyor's Office stating that these fees will be paid.

- 4. The applicant has provided a copy of the restrictive covenants, proof of the formation of a Homeowners Association (HOA), an estimate of the needed annual assessment for maintenance and inspection of the drainage facilities, and a letter acknowledging that the HOA will submit an annual written report to the Tippecanoe County Surveyor's Office (TCSO) to show that the HOA is still active and to report the amount of assessments collected. These documents are currently being reviewed by the TCSO.
- 5. All listed issues must be completely addressed before final plan approval and sign-off will be granted by the County Surveyor's Office.

No error or omission in either the plans, calculations or applications (whether said plans, calculations or applications have been reviewed by the review engineer or not) shall permit or release the applicant and designer from constructing this work in any other manner than that provided for in the County Ordinance.

pc: R. W. Gross & Associates, Inc.

DWE/jd

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